

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

|  |   |   |                  |
|--|---|---|------------------|
| Applicant's or agent's file reference<br>02177.0001P1  | <b>FOR FURTHER ACTION</b>   |   | See item 4 below |
| International application No.<br>PCT/US2004/006599   | International filing date ( <i>day/month/year</i> )<br>05 March 2004 (05.03.2004) | Priority date ( <i>day/month/year</i> )<br>05 March 2003 (05.03.2003) ] |                  |
| International Patent Classification (IPC) or national classification and IPC<br><sup>7</sup> A23B 4/24 |   |   |                  |
| Applicant<br>BYOCOAT ENTERPRISES, INC.,  |   |   |                  |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

|                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

|   |   |
|---|---|
|   | Date of issuance of this report<br>09 September 2005 (09.09.2005) |
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Authorized officer<br><b>Philippe Becamel</b>                     |
| Facsimile No. +41 22 740 14 35  | Telephone No. +41 22 338 70 90                                    |

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
MARK C. COMTOIS  
1667 K. STREET, NW.  
SUITE 700  
WASHINGTON, DC 20006

REC'D 16 AUG 2004

PCT WIPO PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year)

12 AUG 2004

|  |  |  |  |
|--|--|--|--|
| Applicant's or agent's file reference<br><br>BYO01 011 PCT   |  | FOR FURTHER ACTION<br>See paragraph 2 below                        |  |
| International application No.<br><br>PCT/US04/06599  | International filing date (day/month/year)<br><br>05 March 2004 (05.03.2004) | Priority date (day/month/year)<br><br>03 October 2003 (03.10.2003) |  |
| International Patent Classification (IPC) or both national classification and IPC<br><br>IPC(7): A23B 4/24 and US Cl.: 426/331, 335, 532 |  |  |  |
| Applicant<br><br>BYOCOAT LLC   |  |  |  |

## 1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

|  |   |
|--|---|
| Name and mailing address of the ISA/ US<br><br>Mail Stop PCT, Attn: ISA/US<br>Commissioner for Patents<br>P.O. Box 1450<br>Alexandria, Virginia 22313-1450<br><br>Facsimile No. (703) 305-3230 | Authorized officer<br><br>Helen F. Pratt <i>H. F. Pratt</i><br><br>Telephone No. 571-272-1201 |
|--|---|

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/06599

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material  
 in written format  
 in computer readable form
  - c. time of filing/furnishing  
 contained in international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US04/06599

**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

|                               |                    |     |
|-------------------------------|--------------------|-----|
| Novelty (N)                   | Claims <u>1-20</u> | YES |
|                               | Claims <u>NONE</u> | NO  |
| Inventive step (IS)           | Claims <u>NONE</u> | YES |
|                               | Claims <u>1-20</u> | NO  |
| Industrial applicability (IA) | Claims <u>1-20</u> | YES |
|                               | Claims <u>NONE</u> | NO  |

2. Citations and explanations:

Claims 1-20 lack an inventive step under PCT Article 33(3) as being obvious over Compadre or Latin et al. in view of Schneider et al. and Seabrook, Jr. et al.

Compadre et al. disclose a composition containing quaternary compounds, which can be used to spray on poultry in amounts of from .05 to .5 Cpc, with glycerin in water (col. 12, lines 33-50). Alkylpyridinium salt is disclosed and tetra-alkylammonium salt in col. 13, lines 1-35). Lattin et al. disclose the use of quaternary ammonium compounds to remove salmonella contamination from meat product (abstract). Claim 1 differs from the reference in the use of trichloromelamine. However, Schneider et al. disclose a composition containing trichloromelamine (TCM), which is used to spray an animal habitat (chickens, turkeys such as bedding or litter). Seabrook, Jr. et al. disclose the use of TCM and quaternary ammonium compounds in an antimicrobial compound (col. 7, lines 40-55 and col. 8, lines 54-58). Therefore, it would have been obvious to use the claimed compounds together as disclosed by Seabrook, Jr. et al. in controlling microorganisms.

The particular amounts of ingredients as in claims 2-12 are seen as being within the skill of the ordinary worker to determine. Therefore, it would have been obvious to use known ingredients in particular amounts in the process of the combined references.

Claim 13 further requires applying the claimed composition to water for use in a scalding for poultry carcasses. Compadre et al. disclose the use of an apparatus for spraying poultry (fig. 10 and col. 1, lines 1-25). As the antimicrobial composition has been shown by the combined references, it would have been obvious to use a known composition in a spray for its known function of decreasing the amounts of microorganisms. The further limitations have been disclosed above and are obvious for those reasons.

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus meet the requirements for industrial applicability because the subject matter claimed can be made or used in industry.

Claims 1-20 meet the criteria set out in PCT Article 33(2), because the prior art does not teach or fairly suggest the claimed antimicrobial composition in the claimed amounts containing water in one reference.